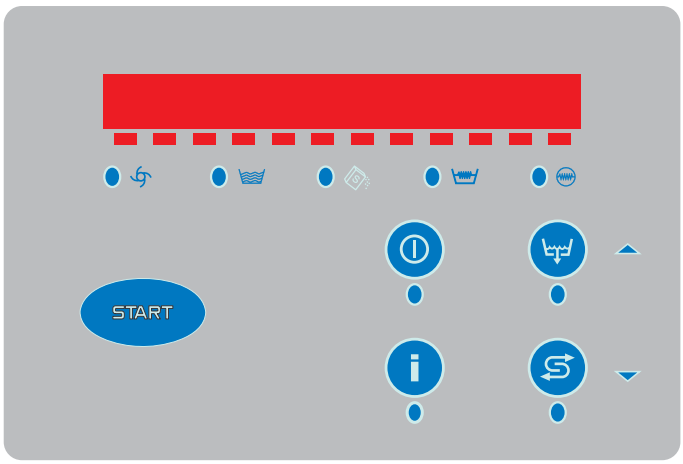
IT

Istruzioni per l'installazione e la manutenzione

EN

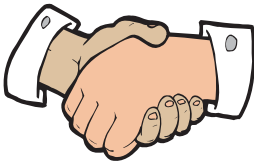
Instructions for Installation and Maintenance

CE



COD.: 3100ES_I
Ed. 01 - 06/2011

APPLICARE ETICHETTA MATRICOLA



Thank you for choosing our machine.

The instructions for installation, maintenance and use found on the following pages have been prepared to ensure a long life and perfect operation of your unit.

Please, do follow the instructions carefully.

We have designed and built this machine using the latest innovative technologies. Now you shall take good care of it.

Your full satisfaction is our greatest reward.

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READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLING THE MACHINE.

WARNING: FAILURE TO COMPLY, EVEN PARTIALLY, WITH THE PRESCRIPTIONS IN THIS MANUAL WILL RENDER THE PRODUCT WARRANTY NULL, AND THE MANUFACTURER SHALL NOT BE LIABLE.

WARNINGS

PLEASE, DO NOT hand this instruction-manual over to the end user.

This manual shall be kept available for the Installation/Service Personnel only.

These instructions are supplied to safeguard the users in compliance with Directive 2006/95/CE as amended and the "harmonized product Technical Standard" EN 60335-1 and EN 60335-2-58.

- THE CONNECTION TO THE ELECTRICAL AND WATER NETWORKS, FOR INSTALLING THIS UNIT, MUST BE CARRIED OUT BY QUALIFIED OPERATORS ONLY.
- The user shall not carry out any repair and/or maintenance operations. In any case contact qualified personnel.
- Only qualified personnel can access the control panel, when the main power switch is OFF.
- Servicing of this machine must be performed by authorized personnel only.
  N.B.: Use genuine spare parts only. Non-genuine parts will void the warranty and the manufacturer will take no responsibility for any damage.
- This machine must only be used by adults. This is a professional machine to be used by qualified personnel, installed and repaired exclusively by qualified Technical Personnel. The Manufacturer declines any responsibility for improper installation, use, maintenance or repair.
- The appliance shall not be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- Children must be attended and shall stay away from this machine.

NOTE: The manufacturer declines any responsibility for accidents to people or any damage deriving from failure to observe the above listed instructions.

1. MACHINE INSTALLATION

1.1 Rinse-aid dosing pump functioning

Functioning:

The dosing pump is powered by the pressure generated by the rinse pump, used to load a spring.

The release of the spring generates the suction of the rinse-aid chemical from its container to the boiler.

To prime the rinse-aid pump, run some wash/rinse cycles.

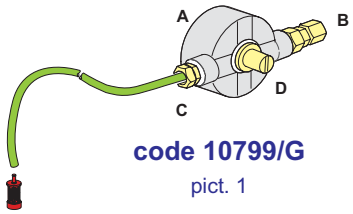
Adjustment:

The dosing pump takes a determined quantity of rinse-aid chemical at each rinse.

This quantity is adjustable from 0 to 4 cm³, equivalent to circa 0 to 30 cm length of the suction hose.

Turn the adjustment screw clockwise to reduce capacity.

Turn the adjustment screw anticlockwise, to achieve the maximum capacity (up to 20 turns).



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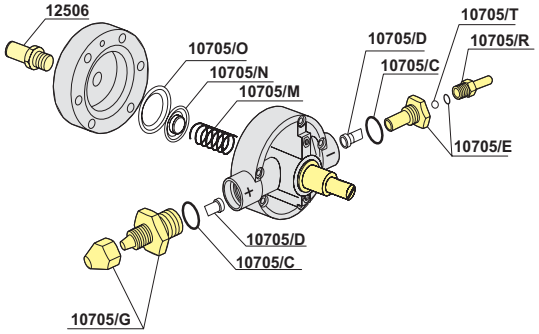
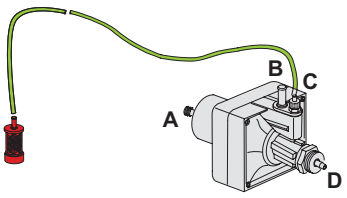
pict. 1





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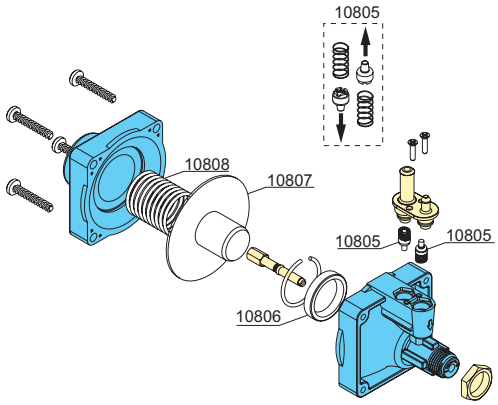
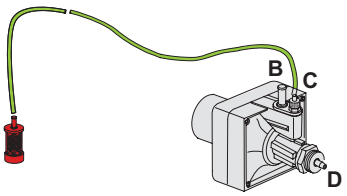
pict. 2





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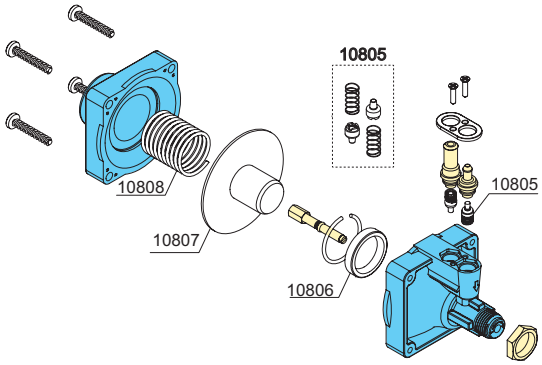
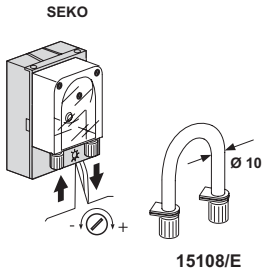
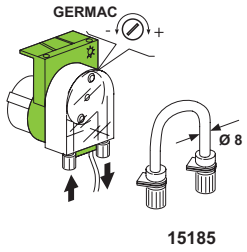
pict. 3







pict. 4

1.2 Detergent dosing pump functioning

Functioning:

The detergent dosing pump is a peristaltic pump.

To prime the detergent dosing pump, just run some free wash/rinse cycles.

Adjustment:

To adjust the capacity of the pump, use a screwdriver (see picture 4).

2 cm length of the suction hose are equivalent to circa 0,25 cm^3, equal to 0,3 g (with product density of 1,2 g / cm^3).

1.3 Thermostop Function

The machine features a standard Thermostop safety system.

The Thermostop system guarantees that the rinse cycle is started only when and if the water temperature in the boiler has reached the temperature selected in the **"RINSE TEMP."** parameter (see chap. 1.5.2).

The duration of the wash cycle is extended in time till the water temperature in the boiler has reached the set temperature.

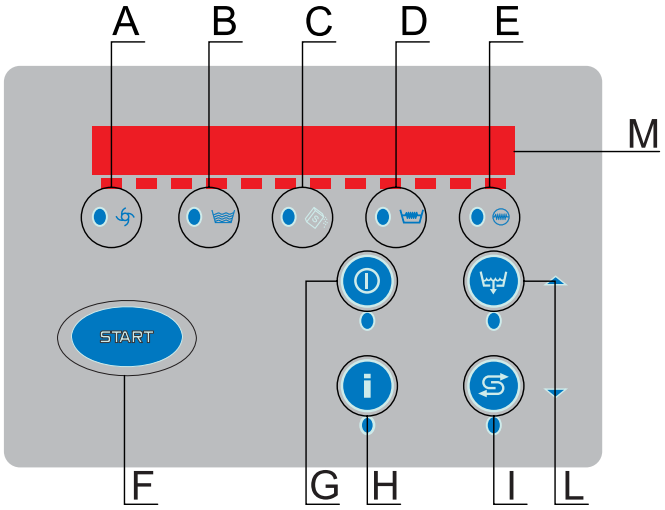
The wash cycle gets longer in time if the machine is fed with water at the wrong temperature (cold water, below 50°C) or if there is a failure in heating the water in the boiler.

1.4 Regeneration function

The machine can be supplied with the Regeneration function.

The frequency of the regeneration cycle is driven by the hardness of the water, as set on parameter **"WATER HARDNESS"** (see chap. 1.5.4).

1.5 Setting the Parameters

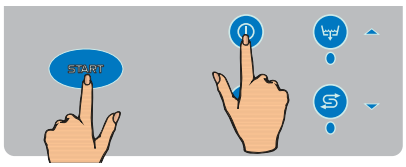


A - Cycle light indicator
B - Full tank indicator
C - Salt shortage indicator
D - Heating tank indicator
E - Heating boiler indicator
F - START key to start up cycle/Programming key
G - Switching ON/OFF/Programming key
H - Info (temperature/software review/key factory)
I - Regeneration key (optional)/Decrease
L - Drain Pump key (optional)/Increase
M - Display

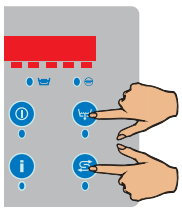
Some parameters are adjustable upon different application needs.

To set the parameters you enter by a “key” into the **"SERVICEMAN MENU"**.

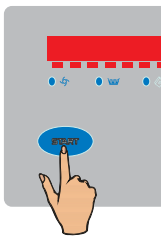
To enter the **"SERVICEMAN MENU"** keep pressed for a few seconds both the **On/Off "G"** and **Start "F"** keys.



By the **Regeneration "I"** (decrease) and **Drain Pump "L"** (increase) key, select the parameter **15**.

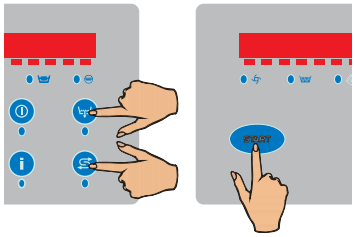


Confirm the selection by pressing the **Start "F"** key.

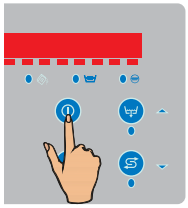


Select the parameter you need to modify by acting on the **Regeneration "I"** (decrease) key and the **Drain Pump "L"** (increase) key.

Confirm the selection by pressing the **Start "F"** key.



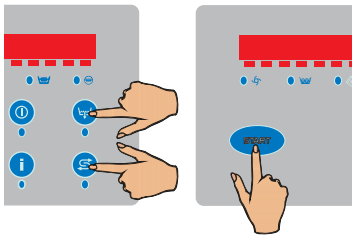
To exit the programming menu press the **On/Off "G"** key.



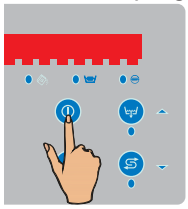
1.5.1 LANGUAGE Selection

By the **Regeneration "I"** (decrease) key and the **Drain Pump "L"** (increase) key, select the parameter **LANGUAGE (ITALIAN, ENGLISH, FRENCH, GERMAN, SPANISH, ...).**

Confirm the selection by pressing the **Start "F"** key.



To exit the programming menu press the **On/Off "G"** key

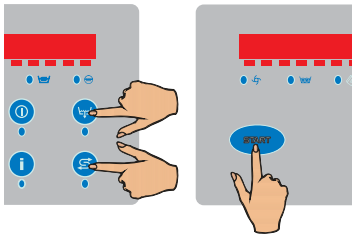


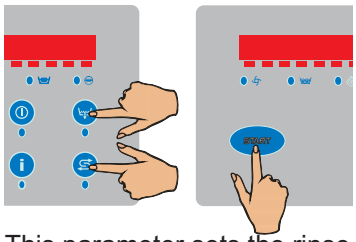
1.5.2 RINSE TEMP. parameter

By the **Regeneration "I"** (decrease) key and the **Drain Pump "L"** (increase) key, select the **RINSE TEMP.** parameter.

Confirm the selection by pressing the **Start "F"** key.

Set the desired boiler temperature (rinse) by using the **Regeneration "I"** (decrease) e **Drain Pump "L"** (increase) keys.
Confirm the selection by pressing the **Start "F"** key.





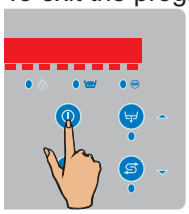
This parameter sets the rinse water temperature according to the actual needs of both the objects to be rinsed and the type of rinse-aid chemical in use.

Minimum setting for rinse temperature: 65°C.

Maximum setting for rinse temperature: 85°C.

The above indicated settings are valid for any cycle available on the machine.

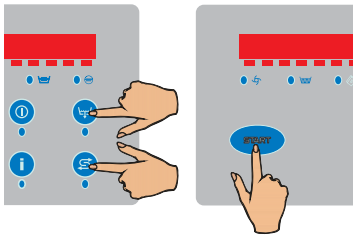
To exit the programming menu press the **On/Off "G"** key.



1.5.3 SET WASH TEMP. parameter

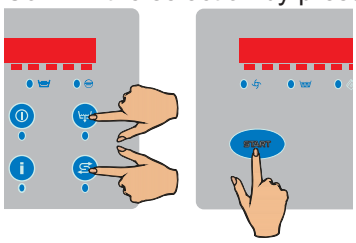
By the **Regeneration "I"** (decrease) key and **Drain Pump "L"** (increase) key, select the **SET WASH TEMP.** parameter.

Confirm the selection by pressing the **Start "F"** key.



Set the desired wash temperature, by using the the **Regeneration "I"** (decrease) key and the **Drain Pump "L"** (increase) key.

Confirm the selection by pressing the **Start "F"** key.



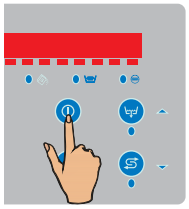
This parameter allows the setting of the wash water temperature according to the actual needs of both the objects to be washed and the type of detergent in use.

Minimum setting for rinse temperature: 50°C.

Maximum setting for rinse temperature: 65°C.

The above indicated settings are valid for any cycle available on the machine.

To exit the programming menu press the **On/Off "G"** key.



1.5.4 WATER HARDNESS Setting (optional)

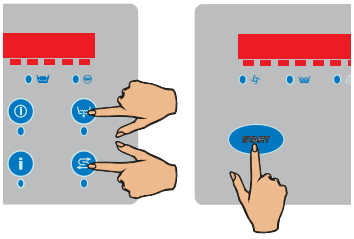
This parameter is visible and adjustable only on those models equipped with the optional built-in **Water Softener**.

Before setting this parameter a proper measurement of the water hardness is needed.

The right water hardness value is fundamental for a proper functioning of the automatic regeneration cycle and a proper water softening.

By the **Regeneration "I"** (decrease) key and the **Drain Pump "L"** (increase) key, select the **WATER HARDNESS** parameter.

Confirm the selection by pressing the **Start "F"** key.

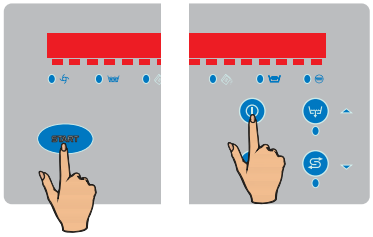


This parameter allows the selection of the right water feed hardness to the machine.

It is possible to select one of the following four parameters:
LOW 10 - 15°F (5 - 8°d)
MEDIUM 15 - 20°F (8 - 11°d)
MED/HIGH 20 - 25°F (11 - 14°d)
HIGH 25 - 35°F (14 - 20°d)

Confirm the selection by pressing the **Start "F"** key.

To exit the programming menu press the **On/Off "G"** key.

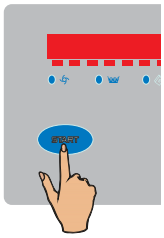


1.5.5 START BY DOOR - Function activation

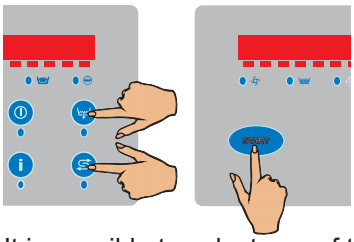
As a factory setting the cycle starts by shutting the machine hood down.

This is a feature reserved to Hood machines only.

In case of Customers' need it is possible to deactivate this function and start the machine by using the **Start "F"** key only.



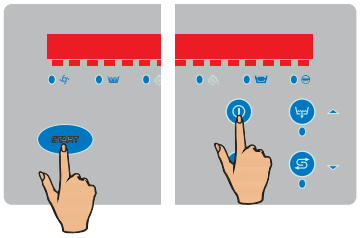
By the **Regeneration "I"** (decrease) key and the **Drain Pump "L"** (increase) key, select the **START BY DOOR** parameter.
Confirm the selection by pressing the **Start "F"** key.



It is possible to select one of the two following parameters:
YES (activates the HOOD START)
NO (deactivates the HOOD START)

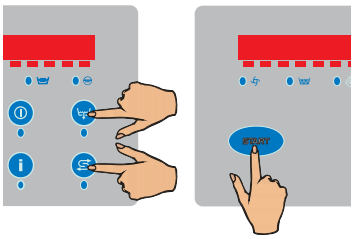
Confirm the selection by pressing the **Start "F"** key.

To exit the programming menu press the **On/Off "G"** key.



1.5.6 DRAIN PUMP - Activation (optional)

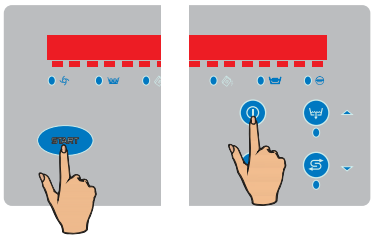
By the **Regeneration "I"** (decrease) key and the **Drain Pump "L"** (increase) key, select the **DRAIN PUMP** parameter.
Confirm the selection by pressing the **Start "F"** key.



It is possible to select one of the two following parameters:
YES (activates the DRAIN PUMP)
NO (deactivates the DRAIN PUMP)

Confirm the selection by pressing the Start "F" key.

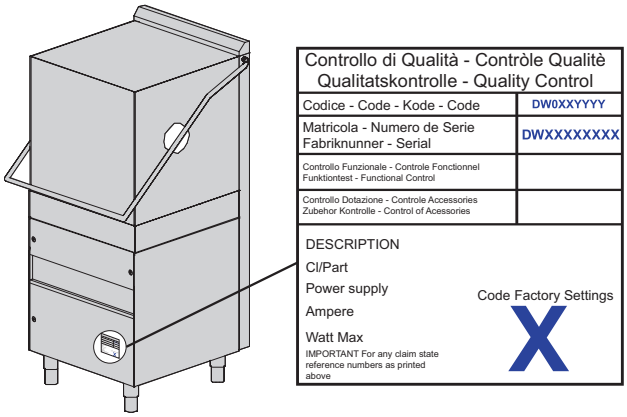
To exit the programming menu press the **On/Off "G"** key.



1.6 Changing the circuit board

In case of substitution of the circuit board, a new start set up has to be made by inserting in the board the factory bar-code that can be found inside the lower front panel of the machine.

This bar-code allows the habilitation of the circuit board, with factory settings.



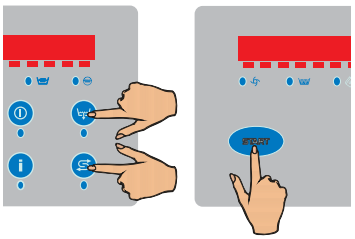
Only qualified and authorized personnel can modify or personalize some parameters, by programming the circuit board (see chap. 1.5 Parameters setting).

At the very first start, on the circuit board display the text **FACTORY CODE** will appear.

The LEDs under the display will start flashing.

By using the keys **Regeneration "I"** (decrease) and **Drain Pump "L"** (increase), insert the factory bar-code of the machine.

Confirm the selection by pressing the **Start "F"** key.



Then the display will show the text: **LANGUAGE.**

Select the desired User's language.

If the machine is equipped with the optional **Water Softner**, the display will afterwards show the text: **WATER HARDNESS.**

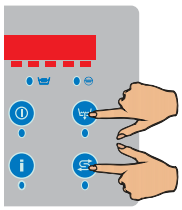
The value of the water hardness is indicated in French degrees.

At the end of the programming, the machine will enter in **Stand-by** mode.

It is possible to reprogram or initialize again the circuit board.

To modify the parameter **FACTORY CODE**:

With the machine in **Stand-by**, keep pressed for some seconds (about 9") both the key **Regeneration "I"** and the key **Drain pump "L".**



The circuit board will reset and a new request for the **FACTORY CODE** will appear.

ATTENTION! When resetting the circuit board, all "menu 15" parameters will be canceled as well.

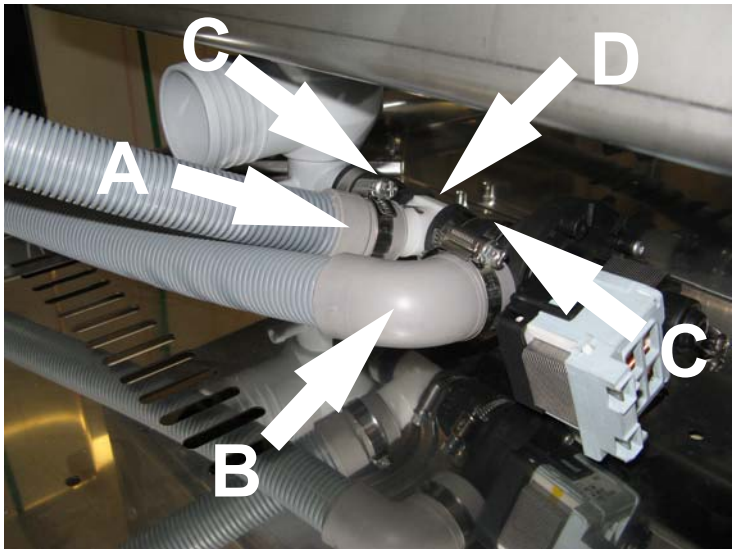
1.7 DRAIN PUMP – Installation

Electrical connection: Connect the drain pump cables to the numbered connections predisposed in the wiring.

Activate the DRAIN PUMP parameter as indicated at chap. 1.5.6 DRAIN PUMP -Activation.

1.7.1 Water connection on machine with vertical wash-pump:

Plus version + Drain Pump or Break Tank version + Drain Pump:



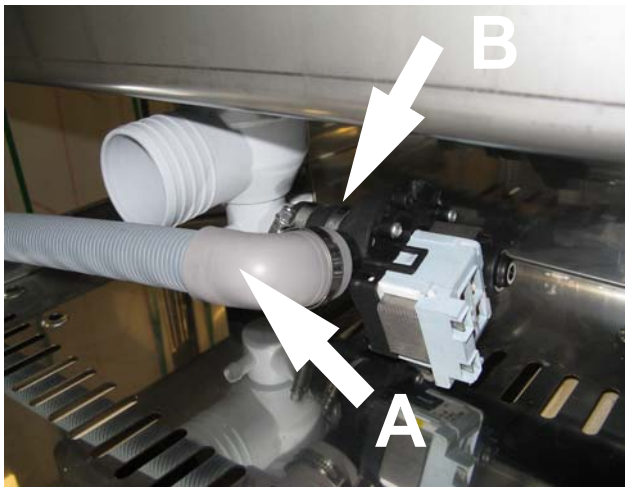
A) Overflow pipe, break tank

B) Drain hose

C) Sleeve Ø 28 mm

D) 3 ways connection

Standard version + Drain Pump:



A) Drain hose

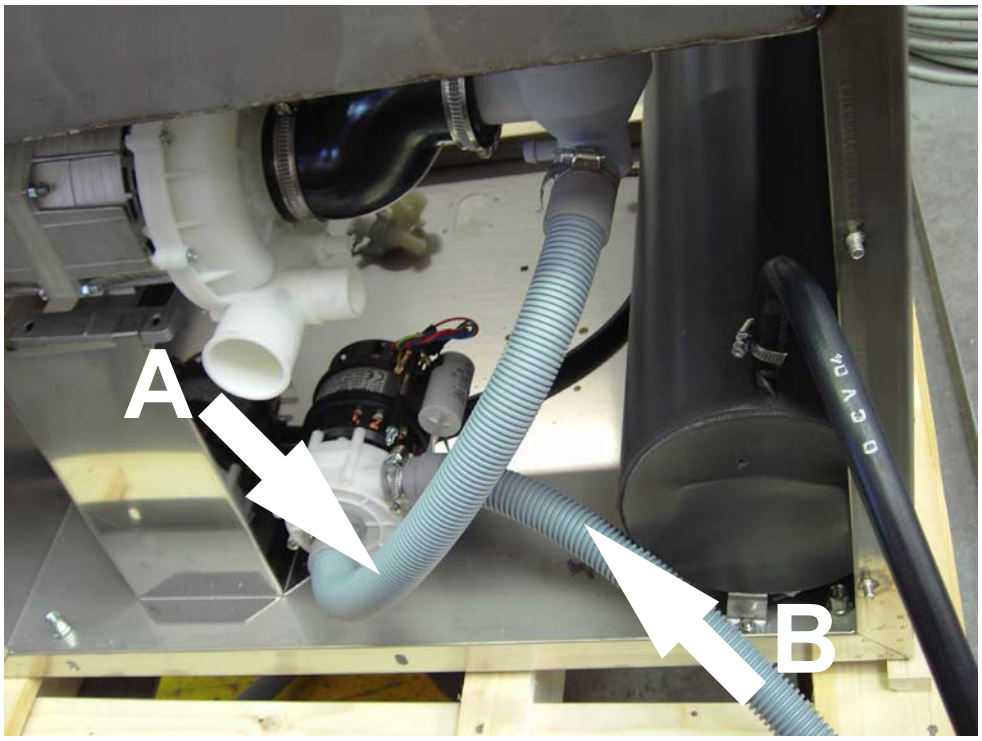
B) Sleeve Ø 28 mm

1.7.2 Water connection on machine with horizontal wash-pump:

Standard version + Drain Pump:

A) Drain hose for wash tank

B) Drain hose



Break Tank version + Drain Pump:

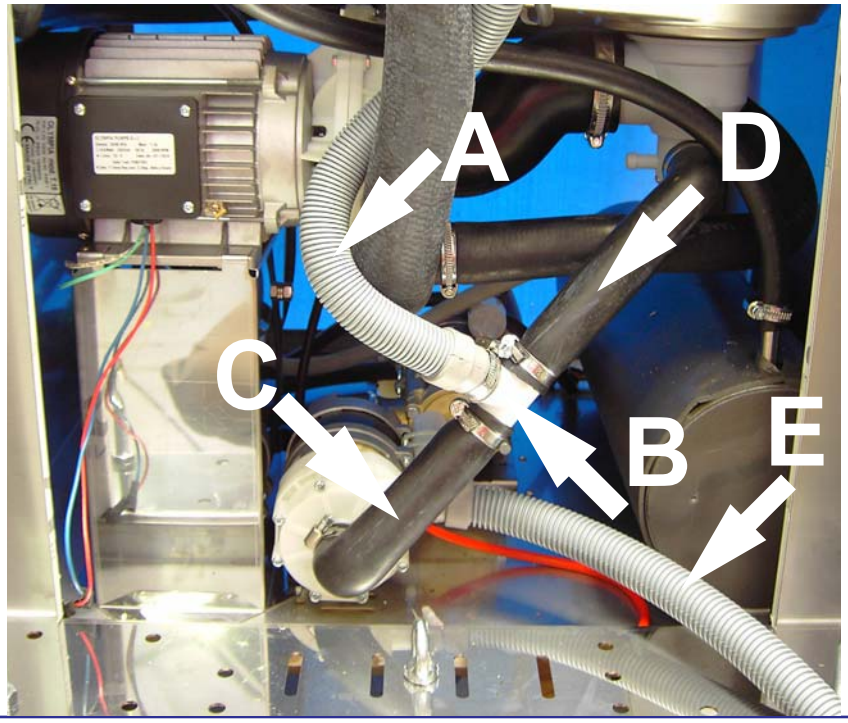
A) Overflow pipe, break tank

B) 3 ways connection

C) Sleeve Ø 28 mm

D) Sleeve Ø 28 mm

E) Drain hose



2. SIGNALS AND ALARMS

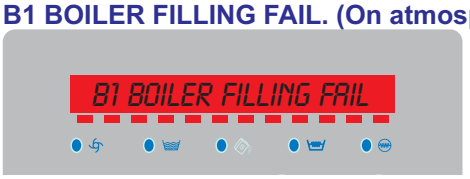
2.1 Signals

The alarm messages are displayed, based upon their meaning.
When on display the indicator below the **Regeneration "I"** key flashes, it means that a total regeneration is needed (only on machines equipped with the optional Water Softner).
When on display the indicator **Salt Level "C"** flashes, it means that the salt level in the bowl is low (only on machines equipped with the optional Water Softner).
When on the display appears **"SHUT HOOD"** it means that you are trying an operation that cannot be done with the open Hood or that you opened the Hood, interrupting a cycle in progress.
When on the display appears **"DRAIN WATER IN WASH TANK"** it means that you are trying an operation that cannot be done with the wash tank full.

2.2 Alarms

TYPE OF ALARM	CAUSE
B1	BOILER FILLING FAIL
B2	BOILER PROBE FAIL.
B3	BOILER HEAT. ALARM
B4	RINSING FAILED
B5	BOILER OVERHEATING
E1	WATER LOAD FAILED
E2	TANK PROBE FAIL.
E3	TANK HEATING ALARM
E5	TANK OVERHEATING
E6	TANK DRAINING FAIL.
Z9	REGENERATION FAIL
Z10	ALARM SL8 - BREAK TANK HIGH LEVEL

B1 BOILER FILLING FAIL. (On atmospheric boiler versions only):



Cause:
The machine boiler fill-up was not achieved in the maximum foreseen 5 min. time limit.

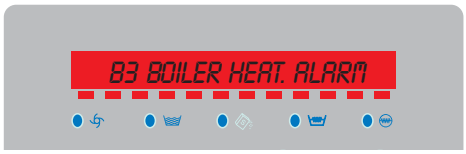
Check:
1. The correct water supply from the piping network.
2. If the solenoid-valve filter is clogged. Clean the filter if needed.
3. Solenoid valve **Y5** failure. Change the solenoid valve.
4. The boiler pressure-switch failed. Replace if needed. Before replacing the pressure-switch, drain the boiler completely.
5. Circuit board failure. Change the circuit board.

B2. BOILER PROBE FAIL.:

Cause:
The circuit board does not detect the boiler sensor.

Checks:
1. Check the electrical connection between circuit board and sensor.
2. Check if the sensor works properly.
3. Check that the sensor did not overheat.

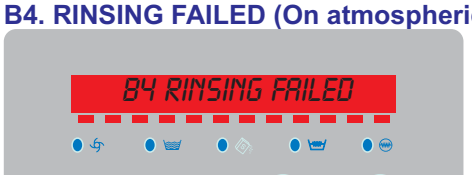
B3. BOILER HEAT. ALARM:

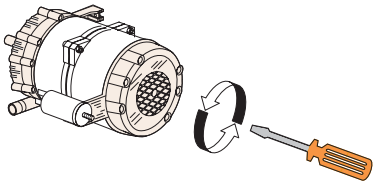


Cause:
The factory-set boiler temperature was not achieved in the maximum foreseen 30 min. time limit.

Checks:
1. If the boiler heating element heats properly.
   Check the integrity of the electrical heating element.
   Check the electrical connection.
   Check the boiler coil-switch **(remote control switch)** protection.
   Check the boiler safety thermostat. Should the thermostat be overheated, press the reset button to check its efficiency. Replace if needed.
2. Circuit board failure. Change the circuit board.

B4. RINSING FAILED (On atmospheric boiler versions only):





pict. 5

Cause:
The rinse water was not used during the rinse cycle.

Check:
1. Check the free rotation of the rinse pump. Should the impeller be blocked, rotate the motor shaft manually, by a screw-driver (see pict. 5).
2. Rinse pump damaged. Replace if needed.
3. The boiler pressure-switch failed. Replace if needed .
   Before replacing the pressure-switch, drain the boiler completely.
4. Circuit board failure. Change the circuit board.

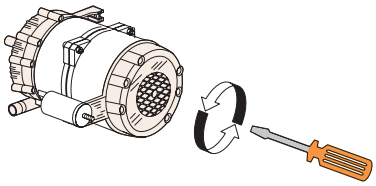
B5. BOILER OVERHEATING:

Cause:
The water temperature in the boiler exceeded 105°C.

Checks:
1. The boiler pressure-switch failed. Replace if needed.
   Before replacing the pressure-switch, drain the boiler completely.
2. Check the sensor integrity. Replace if needed.
3. Check the boiler coil-switch protection.
4. Circuit board failure. Change the circuit board.

E1. WATER LOAD FAILED:

Cause:
The machine wash-tank was not filled in the maximum foreseen 15 min. time limit.



pict. 6

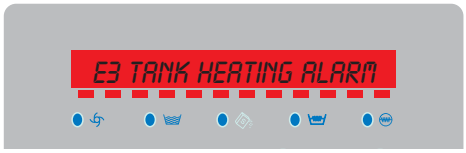
Checks:
1. No water supply to the machine. Open all water supply valves.
2. Check the right functioning of the solenoid valve.
   Solenoid valve filter clogged. Clean the filter.
   Solenoid valve **Y5** failure. Change the solenoid valve.
3. Check the free rotation of the rinse pump. Should the impeller be blocked, rotate the motor shaft manually, by a screw-driver (see pict. 6).
4. Rinse pump failure. Change the pump.
5. The filling of the wash-tank does not stop. Check the tank pressure switch.
6. The rinse nozzles are obstructed. Clean the rinse nozzles.
7. Circuit board failure. Change the circuit board.

E2. TANK PROBE FAIL.:

Cause:
The circuit board does not detect the wash-tank sensor.

Checks:
1. Check the electrical connection between circuit board and sensor.
2. Check if the sensor works properly.
3. Check that the sensor did not overheat.

E3. TANK HEATING ALARM:



Cause:
The factory-set wash-tank temperature was not achieved in the maximum foreseen 60 min. time limit.

Checks:
1. If the tank heating element heats properly.
   Check the integrity of the electrical heating element.
   Check the electrical connection.
   Check the tank coil-switch **(remote control switch)** protection.
2. Circuit board failure. Change the circuit board.

E5. TANK OVERHEATING:

Cause:
The wash-tank temperature exceeded 90°C.

Checks:
1. Check the sensor integrity. Replace if needed.
2. Check the wash-tank coil-switch protection.
3. Circuit board failure. Change the circuit board.

E6. TANK DRAINING FAIL.:

Cause:
The draining of the wash-tank was not completed within the maximum foreseen time limit.

Checks:
1. Check if the overflow pipe has been removed.
2. Check if the drain pipe is clogged.
3. Check if the drain pump is working properly (on machines equipped with the optional **DRAIN PUMP**).
4. Circuit board failure. Change the circuit board.

Z9 REGENERATION FAIL (on machines equipped with the optional "Water Softener"):

Cause:
The salt sensor does not work properly.

Checks:
1. Check if, when the salt container is empty, the display actually shows the **"SALT LEVEL"** alarm. Replace the salt-container if needed.
2. Check that the solenoid-valve **Y3** (salt water dumping) is not clogged or damaged. Replace the solenoid-valve if needed.

Z10 ALARM SL8 - BREAK TANK HIGH LEVEL (On atmospheric boiler versions only):

Cause:
The Break Tank safety pressure-switch detects a high level.

Checks:
1. Check if the level-switch **SL1** is working properly.
2. Check the solenoid-valve **Y5** (stuck open).

3. MAINTENANCE

3.1 Extraordinary Maintenance – by qualified Service Personnel

At least once per year, the machine should be supervised by qualified Service Personnel:

1 clean the intake filter of the solenoid-valve;
2 remove scaling from the heating elements;
3 check the status and the tightness of all gaskets;
4 check the wear and tear of all components;
5 check the efficiency of the dosing pumps;
6 check the efficiency of the door safety switch.

Tighten firmly all electrical connections at least once per year by qualified Service Personnel.